^{214}Fr α decay (5.0 ms) 1970To18

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 121, 561 (2014)	31-Mar-2014

Parent: ^{214}Fr: E=0.0; $J^{\pi}=(1^-)$; $T_{1/2}$=5.0 ms *2*; Q(α)=8589 *4*; %α decay=100.0

Other references: 1968To10, 1968Va18.

1970To18: Measured Eα, Iα, deduced excited levels of ^{210}At.

^{210}At Levels

E(level)	J^{π}[†]	$T_{1/2}$
0.0	$(5)^+$	8.1 h *4*
70 *7*	$(4)^+$	
498 *10*	$(4)^+$	
597?		
837 *10*		
1039 *10*	$(3)^+$	

[†] From Adopted Levels.

α radiations

Eα[†]	E(level)	Iα[†@]	HF[‡]	Comments
7406 *8*	1039	0.3	32	
7605 *8*	837	1.0	43	
7840[#]	597?	<0.1	>2180	α observed at 7834 keV in earlier work (1968To10) was reassigned by 1970To18 to ^{210}At.
7937 *8*	498	1.0	443	
8358 *4*	70	4.8 *2*	1434 *87*	Eα: recommended by 1991Ry01, based on 8353 *8* (1968Va18) and 8358 *5* (1968To10). Iα: recommended by 1991Ry01, based on 5.5 *5* (1968Va18) and 4.7 *2* (1968To10).
8427 *4*	0.0	93.0 *5*	113 *5*	Eα: recommended by 1991Ry01, based on 8426 *8* (1968Va18) and 8426 *5* (1968To10). Iα: recommended by 1991Ry01, based on 94.5 *20* (1968Va18), 93.0 *9* (1968To10).

[†] From 1970To18, unless otherwise specified.

[‡] Using $r_0(^{210}At)$=1.4906, average of $r_0(^{208}Po)$=1.4343 *34*, $r_0(^{210}Po)$=1.532 *6*, $r_0(^{210}Rn)$=1.4552 *21*, and $r_0(^{212}Rn)$=1.541 *5* (1998Ak04).

[#] Final level fed by α branch is uncertain and existence of branch is questionable.

[@] Absolute intensity per 100 decays.